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Staff

Editor

Francis J. Molson

Associates

EDWARD F. BYRNE

WILLIAM P. FEELY

EDMUND L. JOYCE

ROBERT A. LAHEY

RAYMOND J. SARLITTO

Art

ROBERT F. WALTON

Faculty Adviser

REV. ALVIN W. DRUHMAN, C.PP.S.

Measure

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"Measure? What's that?" "Literary magazine, you say?" "Our magazine you say?" "Naw, haven't got time for any writing myself."

And away we went feeling all run down by the helplessness of the task ahead of us. We knew the student body was a bunch of wonderful males in general, but one glorious, conglomerate slowpoke when it comes to writing. We slouched over to our private room, screamed once, and determined to get out a magazine, come you know what or high water.

We wound the clocks, watered the rubber plants, and poked the last bit of dirt under the carpet. With this start on the road toward publishing our journal, we sat at our desk and idly swatted at fluffs of dust which defied Newtonian principles and all that. Reveries of good old Measure days, days of peaches and cream success, were gradually reducing us to a stupor oddly akin that of getting you-know-how beverages. All of a sudden the door sailed open, and in sailed Stuff. We clutched at it eagerly because we're for successful things, and Stuff comes around regularly and successfully every two weeks. After perusing it, we wondered how it would be to manage a venture like this paper, something that people wanted to make a success. So we closed shop and mushed through the slush to the publications building where the campus paper is constructed. We would try to detect what makes Stuff tick.

Having climbed the rickety stairs, we looked over the plant: messed up, paper littered around and heaped about—but business-like. Seeing no one around, we pushed together a few piles of scrap and cuddled up and made ourselves at home. Cold and efficient-like, we judged; waste baskets chock-full of copy; the motto, "800 plus C.S.P.A. rating or bust," pinned to each window shade; and all such manner of enthusiasm. Nothing showy, but everything brisk and to the point!

We fell to pondering what was so conducive to a good thing in this set-up. Further prolonged snooping and peeping in corners didn't help much. We did find a reprint of the revised version of The Excellence of Buttered Popcorn over Common Corn for Theatrical Patronal Consumption along side the business manager sleeping under a pile of back issues of Stuff. But not desiring to disturb the latter's dreams, we determined to call it quits and return to our dingy cubicle for further hours of self-commiseration and dark, editorial agonizings.

At the narrow door, however, we bumped into a "go-getter" sort of chap. After we set his hat aright and brushed off his garments which seemed to have collected a modicum of dust in places where he contacted the floor at our sudden violent encounter, we

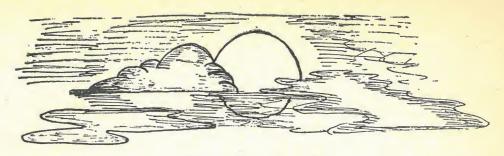
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besought him for his secret. Stuff's layout is masterly, we proclaimed; format, frills, fotography, everything about the paper is fine. What are the secrets involved? Surely, we confided with our most ingratiating smile, some slight disclosures of the inner workings of the organization could do no harm. And if need be, we would barter and haggle in order to gain access to certain hidden files which must contain the ground plan of the whole set-up. The churl screwed his head around at us, scowled; with a withering dignity and disdain, he apprised us of the fact that he was the janitor and would we kindly evaporate so that he could clear the office for the next issue of (and he uttered the name with such reverence) Stuff. We limped Drexel-ward not a little chastened. Well, if the editor of the campus paper cannot find it in his heart to advertise his secrets, we can still be big enough to surmount all difficulties and in charity wish that he never come upon an unsuccessful venture in his entire journalistic lifetime.

We walked into our room and, with a hard gleam in our eyes, emptied the waste baskets on the floor, kicked the dirt out from under the carpet, mussed up our hair, and scribbled furiously. Now maybe our advisor would climb off our back and look around and see things shaping up O.K. And pshaw, all on a sudden we knew: this college would again be graced by the presence of MEASURE.

Despite the many on the campus who had no time to write, we garnered between two covers two score and more pages of print. To those who may take exception to the quality of fare and wonder what may have happened to our budding Miltons and Montaignes we say: "Look, we put in this journal what we receive from the students. See our title—Measure—a measure of the quality of the writing on the campus. See?" At any rate, the staff stands behind this issue; we think it's good! If you like it too, pat yourself on the back; it's your magazine. And, if you don't, well, there's another Measure coming out in the Spring. Donate some of your talent, or forever sully not, man, the name Measure. O.K.?

We write in order to express ourselves, to let the man next door know how we feel about things in general. When you look at your girl across the table and feel queer and poet-like all over, tell us about it. We're human too. If you're sure cholrophyll dentifrice has it all over ammoniated tooth paste, let us in on the fun. We'll try anything, don't you know? Let's make next semester's Measure bigger and better than ever. F. J. M.



Lonely Night

ROBERT F. WALTON

The darkness

was big and thick, and tired and worn. It chilled the night, and wrapped the world in dismal loneliness.

The wind

was cold, fast, fierce, sharp. It whipped the bowing trees; it whistled and screeched at them as they threw their naked arms frantically to the sky.

Far above

the moon shone, scared and alone, white, in a night of big blackness. It splintered on the glossy water that lapped and swayed in icy disgust.

The night was long and lonely.



The Beautiful Pea-Green Boat

EDWARD F. BYRNE

No doubt you have heard of the peagreen boat and the romance of the Owl and the Cat. (They purchased a ring from a Piggy-wig and were wed by a Turkey on the hill.) But have you ever wondered what happened after that?

The Owl was prouder of that pea-green boat than of anything else in the world. He had built it slowly and, oh, so meticulously! The boards were carefully chosen and each was skillfully laid. In short, it would have been a perfect boat—had he not met that beautiful Cat! But, as it was, he was driven by his sudden love to rush the craft to completion. He won the kitty's heart—but what a costly victory! For in his haste he had used a board of questionable quality on the bottom o fhis pea-green boat. There, almost unnoticed, was a little gnarly knot.

They were on their honeymoon, the Owl and the Pussy Cat, drifting through the tropic seas. From isle to isle they went, and all was bliss and ecstasy. Time and again they braved the perilous waters

"Maybe you should fix that silly board,"

the Cat occasionally suggested.

"Ah, dear Cat," the Owl would answer, "never fear when you are in my pea-green boat."

And so they passed the lazy days, as

happy as could be.

But then it happened. One day out from Wakipu a torrential wave came swooping down upon the brightly colored bark. Water hit wood with a deafening crack and the tiny craft rose high into the air. For a moment it hung there in the wind; then suddenly it fell and like the clap of mighty hands struck the surging sea. It bounced, then bounced again, then settled on the

calming waves. The lovers opened their eyes to see a gush of water sprouting through the bottom of the boat.

"Oh, Owl!" exclaimed the Cat. "The knot

is gone! The water is coming in!"

"Yes," the Owl replied. "I suppose you are right, my love."

"Do something! Do something!"

"Be patient, my dear," the Owl admonished. "One must solve one's problems calmly. He must never let emotion carry away his reason."

"But, Owl dear, it's getting damp in here, to say the least! Couldn't you—"

"Please, love, I am trying to think."

"Couldn't you-"

"Cat dear, you are disturbing my rational faculties."

"But couldn't you-"

"Please, please, dear Cat. Do you not realize that we have reached a crisis? I must make a decision of great moment, and dare not reason falsely."

"But, Owl, my love, couldn't you plug the hole?"

"Ho,ho," the Owl guffawed. "Dear Cat, oh dearest Cat, have you absolutely no intelligence? Never, in all my many years have I heard of anyone saving a boat by plugging a little hole!"

"Forgive me, love," the Cat replied.

"Certainly not among the best authorities," the Owl continued, "but, even more, not even among the lesser ones have I ever heard of such a precedent. Therefore, I feel quite certain there is a more logical solution."

"Pray, do think of it soon, my love," the Cat exorted. "Already my feet are under water and I fear I'm catching cold." "Oh, sweet," he replied, "I know how this must try you; but, please, you must be patient."

"Yes, dear Owl," the Cat agreed. "I'm

sure you are right, and yet-"

"Ah, but I must think!" the Owl cut in.
"It appears that time is running short. And I dare not wait too long."

"Oh, I'm sure you're right on that ac-

count," the Cat agreed.

Then all was silent as the Owl went into deepest concentration. The water gushed and gurgled with annoying regularity, and with each passing minute the pea-green boat had sunk a little deeper into the waiting sea.

"Oh, Owl, my love," the Cat at last spoke up, "forgive me for my cowardice and foolish vanity, but my fur is getting quite wet. Couldn't we plug the hole for now—that is, until you think of the proper way to save

our pea-green boat?"

"Eureka!" the Owl exclaimed.

"You'll plug the hole?"

"Of course not, silly Cat! I have the answer to our distressing predicament! We must bail the water out!"

"Bail it out?"

"Yes, yes—why did I not think of it sooner?"

"Yet bail it out we must! There are countless incidents recorded of men saving themselves from the jaws of the deep by bailing water out of their boats!"

And so, without another word, they commenced the urgent—yes, quite urgent—task. The Owl flapped his wings with all the zeal of an inspired evangelist. And the Cat gave aid by cupping out the water with her paws. Nevertheless, in spite of all their efforts, the water rose and rose and the boat just kept on sinking. By now the Owl and the Cat were both thoroughly drenched and there seemed little chance of an immediate change in circumstances.

"Perhaps, dear Owl," the cat again suggested, "perhaps we still should plug the

hole!"

"Confound it anyway!" the Owl exclaimed, his calm serenity at last dissolved in the cold water in which he was standing. "I don't know why I ever married you! Can't you see we're doing the best we can? If the forces of nature are against us, am I to blame?"

"Twas merely a thought," the Cat re-

plied with a gentle purr.

And so they continued, one furiously flapping his wings at the water, the other naively dipping it. But it kept on coming and the boat kept sinking deeper. Then suddenly there was a ghastly gurgle—and it was all over.

"I still think we should have plugged the hole!" purred the Cat, but her words were lost as the hungry waves closed over the pea-green boat.

The Genie of the Storage Battery

RAYMOND J. SARLITTO

The storage battery is the tarnished lamp of the Aladdin of mankind in our day. When properly "rubbed," it produces something which we do not fully comprehend, but which is here, and here to serve us in any way we can make use of it. The storage battery is more useful to us than the original gold lamp was to Aladdin. It is the servant of many masters, and it can do things which we, as its masters, have never dreamed of. It is an efficient servant, though sometimes a costly one. It has been with us many years, though it has not changed much in the meantime. Lastly, it is a complex servant, and can conduct many "illnesses" if not given the proper care. But it is a good servant, capable and dependable.

The storage battery was not found merely by accident in a heap of junk, as was the original tarnished lamp. It was the product of much work and much experiment.

In 1800, an Italian Professor of Natural History named Allessandro Volta published his discoveries concerning the first true battery. He discovered that if an alternate series of copper and zinc plates are so placed that each zinc plate is between two copper plates, and the plates are separated by damp bodies, effects similar to those of static electricity are produced between the terminal connecting the copper plates and the terminal connecting the zinc plates. Previous to this, the "Leyden Jar," a device for the storage of static electricity produced by a static generator had been the only source of electricity. Volta's discovery may be thought of as the foundation for the building of our Genie: the discovery of

current electricity, upon which depends the entire development of modern electrical science. The next milestone in the history of the storage battery is the construction in 1859 by a French physicist named Gaston Plante of an electrical cell using lead plates immersed in sulfuric acid solution. In 1880, Plante's plates were improved upon by a Parisian named Camille Faure, who substituted an open-work grid for the solid lead plate of Plante. This is essentially the last major change made in the construction of the storage cell, and it is Faure's cell which is to be considered in the remainder of this text.

On the basis of Volta's discoveries, it may be more generally stated that an electromotive force will be produced whenever two dissimilar solid conductors are immersed in a conducting liquid. The solids are called electrodes, the conducting liquid is called the electrolyte, and the combination of materials resulting in the production of an electromotive force is called a voltaic cell.

Unlike Aladdin, we know just exactly what is inside our gold lamp, we know what it is which produces our Genie, and we know just how to rub it in order to produce the Genie every time. Moreover, we can make a new lamp any time we want to, for the construction of the common storage battery is very simple, and the theory of its operation merely implements chemical reactions which have been known for decades. To begin with, the storage battery does not store electricity; it merely stores chemical energy which at any time may be transformed into electrical energy. A storage battery is perhaps more rightly called

an "accumulator" or chemical energy. A storage battery, then, may be defined as any device for the direct transformation of chemical energy into electrical energy, in which the original chemical conditions may be restored by merely reversing the current. This definition distinguishes the storage battery from the dry cell, the wet cell, or any other primary cell, a primary cell being one in which the positive electrode dissolves in the electrolyte in the process of discharge, necessitating replacement of both electrode and electrolyte if the cell is to be recharged. In short, a primary cell can only transform chemical energy into electrical energy, but a secondary cell, or storage battery, can be recharged, once discharged, by the reverse process of transforming electrical energy into chemical energy.

A storage battery consists of four major parts: the plates, the separators, the electrolyte, and the case. The construction of the plates is the most complex process of the four, and it is this which distinguishes one type of storage battery from another. The first storage batteries had solid lead plates for electrodes. Before they could be put into operation, the cells had to be "formed" by several charges and discharges in order to change some of the surface lead into active material, lead peroxide on the positive plate, and sponge lead on the negative plate. Camille Faure did away with this costly, slow process when he constructed a gridded plate of lead-antimony alloy, the crevices filled with red lead. These plates required only an initial charge to change the red lead, or lead oxide, to active material. These are fundamentally the plates used in modern lead storage cells.

The plates are arranged in the cell in such a manner that each positive plate is between two negative plates. Consequently, there is always one more negative plate

than positive plates in a cell. The tops of the positive plates are then connected by a metal strap leading to the positive terminal, and the negative plates are connected by a metal strap leading to the negative terminal. Separators are then inserted between the plates to prevent short circuits from developing, as would happen if a negative plate were allowed to come into contact with a positive plate. These separators could be made of any non-conducting material would allow the electrolyte to circulate around and through it. The most common separator in use today is made of porous wood, although rubber and fibre glass separators are coming into wide use.

The plate unit is now ready to be immersed in the electrolyte, which in the case of the lead storage battery is a mixture of sulfuric acid and water. The case containing the plates and the electrolyte must, of course, be leakproof; it must be able to resist the action of the acid; and it must be rugged enough to withstand rough treatment. In the case of the automobile battery, a hard rubber case sealed at the top with a rubber seal ideally suits the purpose. On the top of each cell are three openings, one for each of the terminals and one to allow the addition of water, when necessary. After the battery has been sealed and the electrolyte poured in, the battery is given its initial charge. Direct current is lead into the positive terminal and out the negative terminal. During this operation, the lead oxide on the plates is turned into active material-lead peroxide on the positive plates, and sponge lead on the negative plates. The battery is now complete and ready to be put into operation.

The electromotive force between plates of lead peroxide and sponge lead immersed in sulfuric acid solution increases with the concentration of the solution. Therefore, the voltage of a lead storage battery is high

when fully charged, but decreases as the battery discharges with the decreasing concentration of the solution. A lead storage cell should never be allowed to discharge to a voltage lower than 1.7 volts per cell, since below that point the electromotive force falls off rapidly. Moreover, when a battery is allowed to discharge excessively, active materials may be detached from the plates and cause internal short circuits in the cell.

The capacity of a cell is expressed in ampere-hours; that is, in terms of the product of the current in amperes times the number of hours the cell can maintain that current within the practical limits of charge and discharge. An ampere is the unit measure of the rate of flow of electrons within the cell. The capacity of the cell decreases as the rate of discharge increases. Therefore, an 80 ampere-hour cell would be able to produce a current of one ampere for eighty hours, but it would not be able to produce a current of eighty amperes for one hour. The capacity of a cell is affected by both rate of discharge and temperature.

To revert to our original metaphor,

the storage battery is the servant of many masters; moreover, it is somewhat of a "Jack-of-all-trades" in its servitude. It is used wherever a portable source of electricity is desired, such as in automobiles.

However useful our tarnished gold lamp is in producing the Genie of electricity, gold is nevertheless expensive, and the operation of a storage battery requires a large initial investment. Moreover, a storage battery depreciates rapidly, sometimes over fifty percent annually even when given good care. The depreciation, of course, depends upon the amount of use or abuse it receives. These facts make exceptional care necessary to the profitable operation of a storage battery. The observation of a few precautions will insure the maximum capacity and usefulness of a cell.

The field of electricity is rapidly expanding. With it is expanding the usefulness of the storage battery. Soon, other methods for producing portable electricity may be found which might make our gold lamp obsolete, but for the present, the marvels of electricity are still the handiwork of "The Genie of the Storage Battery."

I am not a Roman Catholic, and find it impossible to accept the dogmas of that church, but I have profound admiration for it as a spiritual bastion, the most effective one, perhaps, in our beleaguered world; it knows, moreover, more about human nature than all Protestant sects put together; more, it seems to me, than the adherents of any religious faith. And for this latter reason, you find, I think, a larger measure of compassion, a clearer understanding of man's duality, in the works of Catholic writers than is apparent in the works of those outside that faith.

-J. Donald Adams, New York Times Book Review Section, Feb. 3, 1952

So You Don't Like Westerns?

Francis J. Molson

Evelyn Waugh, among other things, critic of all things American, once said that America's foremost contribution to literature was the mystery story. Well, we Americans have something on Mr. Waugh at last, for he's wrong, woefully wrong. The contribution to literature primarily American in origin and tradition is the Western—the

book (or movie) which perpetuates the heritage of the West: its mountains and plains; its vanishing buffalo and herds of cattle and flocks of sheep; its gold and silver bonanza crazes; its Indians and pioneers; its rolling stage coach and galloping pony express; its trek of sooners and the surging of the railroad; and finally its crown and apex—the cowboy. Ours is the only country that can boast of such a contribution to literature, be it for good or bad.

There are all kinds of Westerns. One general theme, however, is at the core of each. This is the eventual triumph of justice. Less basic, but still very common, is the perennial spice of love: man meets woman, man wants woman, man gets woman. And, as in many other genres of literature, the fairy tale and the commedia del arte, for example, certain stock characters invariably appear, so also in the Western: the strong, silent hero who feels that life has wronged him somewhere in the past; the villain, either silky and debonair or oily and despicable, who wants someone's ranch, home, cattle, and sometimes



even the heroine; the heroine herself, a delightful mixture of impetuous tomboy and coy woman, who despises the hero at first but eventually finds him quite desirable; the "other woman" who, despite the fact that she had the first try at the hero, somehow or another just isn't worthy of him.

The quality of fare in the Western varies from the very poor to the occasionally excellent. Usually the best is evaluated as high third class, or through the grace of some generous critics, low second class literature. Yet, despite such rating, the Western, over the years, has appealed to millions both in America and Europe. Why? Foremost among the reasons is the simple and very important fact that Westerns possess the happy quality of telling a rollicking, adventursome story, a quality missing, to the chagrin of many, in so much contemporary literary output.

Secondly, in no other body of literature, except perhaps the fairy tale, is the line between good and bad, right and wrong, so well marked. Nowadays, with evil so pervasive, and with so many ideals proving themselves idols with clay feet, true ends are obscured by a myriad of trivia. To escape the arbitrary standards of contemporary civilization, therefore, many readers and movie-goers flock to the sturdy and dependable Western. Here they realize the hero will triumph, and justice will win out in the end. The good man is shown as good immediately; the bad man, as bad.

No attempt at coloring or whitewashing evil is made. The characters are simple folk, not bundles of neuroses, reflexes, frustrations, and what not. Life in the Western is uncomplicated and realistically taken in stride. Love is truly understood, and the Western's lovers respond to each other with a wholesome alacrity. Perhaps God is not mentioned explicitly, but an awareness of Him and His laws underlies the "Western code"—a rigid standard of right and wrong, swift justice, the integrity and independence of the individual, and the inviolability of and respect for woman and all she stands for.

A third reason is that the Western supplies in part man's need for vicarious living. How often do we yearn for peace and contentment, contact with an uncomplicated kind of life, the reward of honest toil, and the feeling of a full, clean life. The Western fulfills admirably this yearning. The lure of nature-the roar of rivers and streams, cascading down the silent mountains and meandering through the grassy plains; the hills and deserts eloquent of toil and labor-and the cowboy's way of life are the Western's answer to trouble and bewilderment. This is an answer which entices, almost compels the potential escapist harrassed by present day living.

Like most authors, the better Western novelists tend to specialize in certain types or aspects of western life. Ernest Haycox, one of the best, concentrates on the tall, silent hero, broken by an ill-fated previous romance, who finally achieves happiness

through a second woman. Along with thunder and action, Luke Short also puts into his works a healthy dose of the silent hero element. Zane Grey concerns himself with nature description and nature's medicinal effects on effete Easterners.

The Western, both in movie and book, has matured with time. The day of the melodramatic hero is past. No more breathtaking rescuing of the delectable heroine from the wheels of the on-coming train; no more twelve shots from a six bullet gun; no more superman antics by the hero; no more impossible coincidences of action and time; no more peroxide blondes of the type seen now only in the reissues of "oldies" for television. Today the Western is grown up. Ford and Kraemer in the movies; Lea, Wister, Short, Haycox, Field, Grey, and company in the novel have added dignity and stature to the Western. Characters to a greater degree are psychologically real. Plot and motive are emphasized. To the strong simplicity of the story are added the beauty of the well chosen word and the restraint of the discriminating camera.

No one claims the Western stands among the foremost or even the highest among the second best works of literature. Yet, judged in itself, and by its own particular criteria, it is a valid contribution to the body of literature. All things considered, it is safe to say with assurance that the Western in our country will retain for a long time its autonomy and its peculiar and novel relaxation value.

Power, Law and Morality in International Relations

VLADIMIR N. PREGELJ

The world of today is at the brink of destruction. It desperately needs peace, true peace; it wants peace, it talks about peace. Yet it is preparing for war. The paradox of the old adage, "Si vis pacem, para bellum," is still the basic rule governing the relations among states. They produce arms, amass ammunition, accumulate bombs, and conscript young people. Looking at this evidently irrational approach to a just peace, one cannot help but conclude that there is something wrong with international relations, that the basic issues concerning the coexistence of nations are misjudged, and their fundamental principles distorted. I shall try to analyze and evaluate the triangle of basic principles of international relations, the interrelation of power, law, and morality, and restore each of these to its proper place.

One could not imagine international relations devoid of the concept of power. The state ies a society and, as such, must possess some authority to govern itself. The concept of power is inherent in the concept of authority, for authority cannot exist without the backing power. Power, therefore, is indirectly an attribute of the state and, as such, an element in the relations between states.

An attempt to define power as an element in the international relations must here be made. Of the various definitions of power, the following one by the outstanding Catholic political philosopher, Heinrich Rommen, seems to be the most adequate: "Power is the actual ability of a person to determine the will of another person

by strong psychological motivation, even by the threat of applying force, to produce an external conduct according to the will of the first person." A shorter definition by the same writer considers power "the ability to find obedience to one's imperative demands." Power in this connotation usually implies physical power, power of force, actual or potential violence used to coerce, or to destroy those who will not be coerced. Such power usually relies upon the might of arms. It can, however, exist in numerous other less violent forms. The strength of population, the geopolitical situation of the state, and, especially in modern times, a score of economic factors constitute the pillars of the power of a state. As a rule there is no one individual factor underlying the power of the state; rather, the power is determined by a complexity of factors and their interaction.

Since the power of a state originates in so many different sources, it is rather obvious that it will, in turn, have a varied impact upon a multitude of fields of human endeavor and upon the power of other states. It will undoubtedly affect a large majority of them, and, because of this, power must be controlled lest it be gravely abused or misused. During the Middle Ages, when the entire Christian world was marked by a moral unity and homogeneity, the control of power in the relations among the states was the prerogative of the Popes as the supreme judges of a united Christendom. This prerogative was acknowledged by public law and common consent of the Christian states. In the modern times, however, when the authority of the Holy See over international relations is not internationally recognized and is practically non-existent, some other agent or device for controlling the power of states has to be instituted. The lack of a supranational authority acting in such capacity must be compensated for by either threat or even use of a superior power of force, or by the pressure of certain criteria of conduct on the possessors of power.

The control of power by threat of a superior power prevails in the world today. It is the factor behind the situation we are trying to correct and, therefore, is an unacceptable solution to the proposed problem. The unacceptability of power-control by power becomes more obvious after a brief consideration of its basic premises. One of these postulates that the threat of reprisals inflicted by a superior power will induce a nation not to abuse its own power in waging an unjust war. Likewise, in the absence of a superior power, matching the power of a nation or group of nations with an equivalent power, of another nation or another group, will create a balance of power and thus make war impossible or, at least from the viewpoint of any potential gains, futile. Both of these apparently true state ments are based on the fallacious premise that the power is static. Nothing is further from the reality. The power of a state is a product of a host of factors, all of which are dynamic, changeable, and changing. To suppose otherwise is unrealistic. If, then, the factors of power can and do change, so does the power. Any change in power disrupts its static condition and, in turn, the international balance of power. The result can be only war. The principle of the balance of power will prompt the nations to willfully increase their power potential, not necessarily to abuse it offensively, but merely to be able to meet any eventual increase in power of the opposing nation or group of nations. This build-up of power on both sides, while it will not disrupt the balance of power, will make the situation more disastrous should the balance become disrupted. Balance of power is a powder-keg, ready to explode at the slightest disturbance, and to explode with louder report and greater destructivity the more packed it is with power.

From the viewpoint of the goal of international relations, international peace, balance of power presents another disillusionment. While powers in perfect balance admittedly will tend not to come into open conflict, such absence of fighting still cannot be termed peace. Peace is marked not only by the absence of war, but by a cooperative coexistence of nations.

Evidently, the pressure of certain criteria of conduct upon the possessors of power, should be more effective in achieving this cooperative coexistence. These criteria of conduct usually exist in the form of law, and law as a criterion of conduct can be either an expression of the will, or it can be a decree of reason.

Any law which is an expression of mere will is ultimately based on force, on power; for only power can promulgate laws at will. Ultimately, then, the power itself is the lawgiver. But power is also that which is to be controlled by law; it is the controller and the thing to be controlled at the same time -an absurd situation, indeed. It is clear that power will never promulgate a law which would control power; for the essence of power is to be strong, not kept in check. Any laws aimed at curbing power would affect its very essence and literally destroy it. Such self-destruction cannot be reasonably expected, and there are, consequently, no means of power-control. It is obvious that a law based on the mere will is entirely ineffective in controlling power.

To achieve an effective control of power, there must necessarily exist a law independent of the power it is to control, a law which takes priority over the will of individual power-state. Clearly, such law, although issued by authority, must ultimately be determined by the reasonableness of its end. Its rule must be a rule of reason and for reason. Although authority to make a law implies power, this power is subject to reason and is only a means of promulgating the law. When reason is the supreme factor of legislature, power is ordered toward the proper end and becomes a constructive element working for peace. As power must be controlled by law lest it degenerate into tyranny, so the order of law without power to enforce it against the lawbreaker is mere impotence. Under the rule of reason, power and law are two essential elements working harmoniously toward a common

Since the law is a decree of reason aimed toward an end, these questions arise: What is a reasonable end toward which a law must be directed? What is the measuring stick of a reasonable law? As the answer to these questions, rationalism proposed that the end of each law and, indirectly, its determinant is its usefulness to the public. The doctrine of "the greatest good of the greatest number" became the fundamental principle of all legislating. While this maxim certainly is quite appealing to the mind, it presents a practically insurmountable difficulty: Who is to decide what is the greatest benefit of the greatest number? Should this decision be left to the discretion of the legislator and thereby turn him into a dictator and tyrant? Should it be made by various pressure groups trying to impose their own interests as those of the public? After all, what authority would be strong enough or high enough in the hierarchy of nations or so supranational as to be able to promulgate such a law? And if this law were finally promulgated, would it be satisfactory to all people and all the nations? Would it not do injustice to some of them?

One way of circumventing this problem would be to follow a suggestion implied by a former British Lord Chief Justice, Lord Russell of Kiloween, in his definition of international law as "the sum of the rules or usages which civilized states have agreed shall be binding upon them in dealings with one another." In this way of thinking, international law is determined by the common consent of civilized nations. The practical failure of such a solution becomes obvious from the limitations which it places upon itself. The rules and usages differ widely from one civilized state to another, and those common to all would necessarily be very few, perhaps all too insufficient even to warrant the establishing of an international code of law. Again, the rules and usages of what Lord Russell would probably call uncivilized states and which, in spite of their "barbarity," are asserting themselves more and more in the family of nations, are completely disregarded. The crucial point, however, lies in the idea of consent of the states. It would seem that any state which, for one reason or another, would not care to agree with the rest of the states, would be excused from abiding by the law. Such a situation is clearly unsatisfactory in view of the common end of international relations-world peace. It is also unsatisfactory because it completely disregards the only element that can coerce states to abide by the law-moral obligation.

The only basis for an effective international law capable of controlling the use of power and of regulating the relations among the states, is a valid superior code of morals with its coercive power of moral obligation. Such a system must be binding

upon all mankind, since it proposes to regulate the interrelations among the societal units of all mankind. It must be binding on man as man and, therefore, must apply to the very nature of both man and the state. The only moral law fully satisfactory is the natural law, the eternal law as mirrored in human intellects and recognized by human reason. This law is binding on states as well as on individuals. The state is a natural society with its roots in the natural law; its dealings with its own citizens, as well as those with other states are subject to the same natural law. We cannot escape the conclusion that there exists a natural international law governing the intercourse of state with state. This law consists of a body of laws which immediately flow from the nature of the state. Their validity and moral obligation in no way depends on the acceptance or agreement on the part of the nations.

Peace can come only if international lawmakers ground their deliberations and actions upon the divine law as reflected in the natural law, if leaders of the nations acknowledge this law and live by it. But how far we still are from this goal, the confused state of our world only too clearly shows.

To love is not to experience a particular sensation in the heart; that emotion is but a reflex phenomenon, a detail of love and the least. To love is to wish for the good of another, it is to give the best of one's self for the good of another; it does not mean grasping for one's self; love means giving one's self.

Monsignor Landrieux, THE FORGOTTEN PARACLETE



My Goddess

ROBERT F. WALTON

My Goddess Is like new springtime to me; Like rain and perfume Wetting my face, Waking my eyes; Like a green breeze Blowing pink petals Through dark grass, shiny with dew. You see A restful row of roses, Red, Beside a road; Brightening the shade And lending life To the silent stillness. That's my Goddess . . . And now she speaks . . . "Follow . . . Step softly with me. Hold my hand and inhale my fragrance; Hurry . . . Live with me . . . Love me As you love Youth, life, springtime."



My Goddess Is like brilliant summer to me; Like orange noon of a white day, Like the soft, still, Soothing evening. Velveted quiet by endless coolness. You see her . . . Mad, wild, Always standing above, alone; With her youth daring all the world. The bubbling water In a hot forest. That's my Goddess. Again she speaks . . . "Stand close; be part of me. Breath with me. Sigh with me. Tremble with me in the thrill Of being loved. Love me As you love Fire, life, summer."

MEASURE 21



My Goddess Is like an autumn evening to me; Like wind and leaves, Husky and kicking, Rushing, rustling, yet restful, Alive in the twilight of spent days. Like white stars In dark blue skies hovering. You see September, Gorgeous in its promise, Whispering, exciting. That's my Goddess. She speaks to me . . . "Come . . . Fly with me On the whirlwind breeze, Sweeping upwards to nowhere. Come . . . Love me As you love Breath, life autumn."



My Goddess Is like wonderous, white winter to me; Like snow and daughter, Caressing my shoulders, Kissing my cheek; Like a soft night, Dancing, Dazzling Under drifting whiteness. You see her, Still, sweet, Shy ... and yet aloof and alluring. Like a snowflake, Teasing, turning, tantalizing, And then taken. That's my Goddess. Once more she speaks . . . "Watch with me, Watch the quiet world, As the world has watched. There, lover, our wonderland, Resting, as we drift away. Love me this last time, As you love Beauty, life, winter."

EDMUND F. BYRNE

Ι

The locker room at Aquinas High School was a bedlam of disorder and emotion. The members of the football team had just returned from Civic Stadium with a surprise victory over their city rivals, Columbia Tech—and they were making the most of their success. But tonight there was more than the usual air of jubilation in the room. Voices clamored louder, ever louder.

"Let's get 'em!" was the general cry, like the near-fanatical yell of frenzied infantrymen.

And standing in the center of the group, urging his team mates on, was "Moe" Whitfield, a pudgy, tousle-headed youth with bright sparkling eyes and a ruddy complexion. Murray was his given name—Murray Whitfield, son of Mendalia's most prominent lawyer.

"They'll be waitin' for us down at the Youth Center, gang! Show 'em we can fight off the field, too!"

"You don't know what you're doing, Moe!" cried a tall, handsome lad who was standing at his side.

"What's a matter, Eddie?" someone yelled. "Ya turnin' chicken on us?"

"Them guys weren't so tough on the field," another added. "Ya think they'll be any tougher on the street?"

"That doesn't have a thing to do with it!" Eddie replied, his forehead pursed into two little furrows between the eyes. "Football is a *game!* Street fighting is strictly for bums!"

"Well, listen t' the philosopher!" another player remarked.

"Write about it in your paper, Morris-sey!"

"Yeh-or bring it up at one o' your Student Council meetings!"

A laugh went up. Eddie's cheeks turned crimson under the torrent of sarcasm, but his eyes burned ferociously.

"Come off it, Ed!" remarked Jerry Klein, a big muscular full-back who was a boon companion of both Morrissey and Whitfield. "Ya played a great game tonight. Don't turn chicken now!"

"It's not right, Jerry!" Eddie answered with a pleading gesture of his hands.

"What d' ya mean?" snapped Moe, his voice muffled under the nylon sweater which he was pulling down over his head. "Those guys pushed me around again tonight!"

"Ha!" someone laughed. "You weren't in long enough to get pushed, Moe!"

He was smiling as his head came out through the sweater.

"Yeh, you guys," Jerry shouted, "but don't forget what they done last night!"

All hollered as one, and the issue was closed. For the incident suggested had been pounded into their heads all that day.

The night before, Moe, against training rules, had driven out to Andy's Drive-In Restaurant, the local teen-age hang-out, and there he had become involved in a heated argument with a number of boys from Columbia Tech. The result was a black eye and a battered lip. But, stubborn in defeat, he had immediately challenged his opponents to a fight *en masse* after the game. And for that purpose he and Jerry had spent the day gathering forces among the Aquinas boys.

"That's your battle, Moel" Eddie exclaimed as the two finished dressing. "You ought

t' know better than to drag the whole school in on it!"

"I'm not forcin' anybody! If you don't want t' fight, you don't have to!"

"I don't intend to!" Eddie retorted, slamming his locker shut. "C'mon, you guys! Let's get out of here. I'll haul you down to the Center—but from there you're on your own!"

"Good ol' Ed!" Jerry grinned as he slapped him on the back. "Always lookin' f'r peace an' quiet!"

"Nuts!" Eddie snapped, and the three walked out the door. Then suddenly Moe stopped, turned, and stepped back into the locker room.

"Remember," he yelled. "Meet at the Center!" Then he rejoined his friends, and together they walked to Eddie's car.

II

When they reached the Catholic Youth Center, most of the Aquinas students were already there. As usual, the little two-story brick building was swarming with teen-age boys and girls-but over all there was an aura of anxiety and anticipation. Eyes were peering from almost every window. On the front lawn a group of boys were huddled together, talking quietly. Inside, conversations were also in low, secretive tones. Up on the second floor, the juke-box was silent -an unnatural, disturbing silence. The girls, who usually passed the time dancing together, were standing around in small clusters, buzzing with excitement. But the gang from Columbia Tech was nowhere in sight.

Eddie stopped his little coupe in front of the building.

"All right, men," he snapped, "out you go!"

"Aren't you comin' in?" Moe asked.
"I think I'll get to bed early tonight."

"Well! Blow on me!" derided Jerry. "We ain't good enough for ya, huh?"

Eddie's face again flushed red.

"Darn!" exclaimed Moe. "Don't muss your hands in the fight if you don't want to! But at least you can stop by for a coke or something. After all, we did win a game tonight, you know!"

"Maybe he's gotta work on the yearbook

again," Jerry suggested.

"To be sure!" Moe agreed. "We mustn't keep him from his work! Aquinas would collapse without the tireless efforts of E. Albert Morrissey!"

Eddie inhaled deeply. His hands tightened about the steering wheel. "What are you going to do in there?" he muttered.

"Oh, I don't know," Moe flippantly replied. "Maybe we'll beat up on the girls to get in shape."

Jerry laughed uncontrollably. "Very funny!" Eddie sneered.

"C'mon in, Ed," Jerry begged with apparent sincerity.

"Yeh," Moe continued. "We'll protect you if the bad men try to come in."

"Sure," Jerry volunteered with a quick change of tone, "we can't let nothin' happen to our Student Council boss—"

"And yearbook editor," Moe added in mock admiration.

"An' football star!"

"And-"

"All right, all right!" Eddie shouted. "Cut it! I'll stop in for a couple minutes. Maybe I can find a few *civilized* people to talk to!"

"Oh, thank you, darling," Moe laughed. "Delighted t' have your company."

As Moe continued his idle chattering, Eddie started the car, roared down the alley, and screeched to a stop in the parking lot behind the Youth Center. The three hopped out and walked inside.

As usual, their steps eventually brought them to the pool room on the second floor. Each of the two tables was being used, and there was a crowded waiting list. But as the three entered the room a spontaneous cheer went up.

"Nice game, boys!"
"Way to go, Jerry!"
"Great game, Eddie!"

"Hey, Moel" one of the boys asked.

"Where were you tonight?"

"Oh," he laughed, "Coach heard about my date with the blackjack last night. He wasn't too happy about it . . . How about next game, men?"

"Sure thing," one of the boys grinned.

"Heck, take it now!" another suggested.
"You guys earned it!"

Another cheer went up.

"Thanks, fellas," Eddie smiled.

"C'mon, Jack," Moe called to another football player who was standing in the hallway. "You and Eddie stand me an' Jerry in a quickie."

"Sure enough, Moe," he answered, then excused himself from a circle of young ad-

mirers.

"Eight-ball O.K.?" Moe suggested as Jack entered the room.

All participants agreed and every available hand began helping to gather the balls into the rack.

"Hey, Moe," one of the boys asked as he rolled a ball down the table, "when's Columbia comin' over?"

"They'll be here, they'll be here," he replied, snatching the ball and slamming it into the triangle.

"Ol' Moe won't let ya down," Jerry grinned, studying a cue at a perpendicular

from his eye.

"No, sirl" Eddie snapped, his lips tight but his face red with heat. "Moe's always good for a fight. You can order 'em by phone if you want to."

The boys laughed. Moe sneered, but quickly changed to a smile as he stepped to the head of the table.

"Three of 'em in on the break!" he pre-

dicted. A pause. Silence. The tap of cue against ball, then—crack! The triangle scattered in all directions. One of the balls clattered into a side pocket and another sidled into a corner. But the others one by one came to a stop and the group of admiring spectators broke into laughter.

"Where's the third one, Moe?" a little freckle-faced sophomore piped up.

Always the actor, he quickly had the answer. "I saved her for this shot, Freddie!" He put the cue behind his back, slowly, carefully lined it up, then jerked it forward. Balls collided and the one clunked into the corner pocket.

"Touchel" Eddie exclaimed, forcing a

smile.

The boys were delighted. But then, from outside—

"They're comin,' they're comin'!"
"Let's go, you guys!" Jerry shouted.

With a flood of battle-cries, the boys turned and headed for the door. Moe dropped his cue on the table, started out, then stopped and looked at Eddie. He blushed but didn't move. Another moment, and Moe joined the others who were clambering through the door and down the stairs. Bringing up the rear was Jerry.

"Comin,' chickie?" he asked.

Eddie flushed crimson, but stood firm.

"I'll see you guys in the morning."

"Foohey . . . !" Jerry exclaimed as he started out the door. Then, going down the stairs, he yelled, "Wear y'r yella nightgown t'night, Ed. It'll match y'r skin!"

Eddie slumped to a chair and started to put his head in his hands. But at that moment two girls walked by the door. They saw him and stopped.

"Hi, Eddie!" each of them called as they turned and entered the room.

"Hello, Mary. Hi, Carol."

Awkardly he arose, picked up a cue stick, and started sliding it back and forth in his hands. Through the open window he could hear the clamor of voices in the street.

"Aren't you going out there?" Mary asked, with a little smile playing about her lips.

"A, a, ah, I don't think so." He tried to smile, but his lips just quivered. His hands moved nervously up and down the cue. "I, I think I'll catch up on my pool technique," he stammered.

"Gosh!" Carol gasped. "And you're a football player!"

"You never know," Mary smirked. Then, taking her companion by the hand, "C'mon," she said, "let's go see what the men are doing!"

"What?" Carol muttered sleepily. "Oh. Oh! All right. A, a, ah, we'll see you, Eddie."

"Sure," Mary added. "Watch that eightball, kid!"

Then quickly they turned and flitted out of the room. Eddie started to speak, but caught his words as the girls disappeared down the steps.

Now he was alone—completely alone. He stood motionless as the shouts of the crowd rose and filled the room. He started toward the window, but quickly stopped himself and turned the other way. Then he looked down at his fidgeting hands and grimaced. He gritted his teeth and closed his hands tightly around the cue. His muscles quivered from the strain and sweat poured out upon his face. Then suddenly he raised his arms and hurled the stick across the room. It smacked against the wall and clattered to the floor. He sank into a nearby chair and buried his head in his hands. He dug his fingers deeply into his forehead—but only for a moment. He jumped up and began to pace the floor. Eventually his feet came to the cue, which was lying near the wall. He stopped. He gazed at it for a while, then suddenly turned and ran to the window.

His whole body was shaking as he looked down on the shouting and screaming throng. Tempers were high and voices were pitched to frenzy. But the two groups were still apart. On the far side of the street he saw the large gang of boys from Columbia, swarming over lawns and sidewalks-some waving lead pipes, some holding bricks, or even knives-some holding pistols! On the nearer side stood the crowd of Aquinas students—the girls up in the yard, the boys down on the sidewalk and on the grass by the curbing. There were no cars in sight. But there—there, in front of the Catholic group, stood Moe and Jerry, the former yelling raucously at the mob across the street.

For a long, long time Eddie stared out the window. Then, slowly he turned and started out the room, first walking, but soon breaking into a run—through the door, down the steps, and out to the front yard.

TIT

He walked up behind the crowd and stopped near a group of girls who were watching intently—waiting for something to happen. He started to speak, but instead remained silent, listening . . .

"C'mon over an' start something!" Moe was yelling.

"You come over *here*, Whitfield!" retorted a small, barrel-chested youth who kept pounding a long lead pipe on the palm of his hand.

"Sonny Carson!" Eddie gasped as he recognized the leader of one of the most vicious teen-age gangs in the city.

"You asked f'r dis!" Carson continued. "What're ya gonna do about it?"

"You came this far!" Moe retorted. "Ya 'fraid t' cross the street?"

"The fool!" Eddie cried out.

The girls turned their heads, but at once Eddie began to make his way past them. He pushed through the crowd on up to the front—up to where Moe and Jerry were standing.

"What are you trying to prove, Moe?"

"Well!" Jerry exclaimed. "Chickie's outahis shell! Ain't you scared t' be out after dark, Ed?"

He blushed, but continued pleading with Moe.

"Don't you see what you're doing?" he asked. "Somebody could be killed if this ever gets started!"

"Go play with the billiard balls, Eddie! There's no room for you out here!"

"That's Conny Carson over there!" He pointed across the street.

"So Columbia got a little help," Moe drawled wearily.

"You empty-headed idiot!—you're bluffing, Moe! You're human! You're as scared as the next guy—"

"Shut up, Eddiel"

"You're as scared as the girls in the back

row! You're just bluffing-"

"Bluffin,' hus?" Moe exclaimed with a wild gleam in his eyes. He stared for a moment at his friend, then ran out into the middle of the street.

Instantly Eddie rushed out, grabbed him, and pulled him back into the crowd.

Voices thundered on both sides.

"Leave him alone, Morrissey!" someone shouted from behind.

"Who let Granny out so late?" another voice yelled from the Columbia gang.

"What's a matter, Morrissey?" came another voice. "Ya losin' y'r nerve?"

"Who's da truant officer?" Carson asked with a cynical laugh.

"He don't like noise!"

"Aah, the heck with him!"

Eddie was red with humiliation.

"You asked for this, Eddie!" Moe shouted over the crowd.

"Yeh," Jerry added, "y'r guts 're weak t'night!"

Eddie stared at his two friends, confusion and bewilderment written on his face.

"You think," he stammered, "you guys actually think I—"

The two crowds were growing moodier and were now slowly moving towards each other.

"Where are ya, Whitfield?" someone yelled from across the street.

"Yeh! Ya lettin' panty-waist hold ya

"Sure thing, sure thing!" Moe answered sarcastically.

"You do think I'm—" Eddie muttered, "you meant what you said!" He stood motionless, his mouth open, twisted into a grimace.

"Shake off da nurse-maid!" Carson shouted. "Let's go, Whitfield!"

"You guys think-"

"C'mon, Whitfield! Shake the nursy!"

"That's enough!" Eddie cried, then impulsively rushed out from amid the crowd and stopped in the middle of the street,

"Okay, wise guys!" he screamed. "Here's your nursy! You want t' do something about it?"

In an instant, Sonny Carson came charging out of the other mob and rushed straight for Eddie, brandishing his crude weapon high in the air.

Almost as quickly, both mobs ran out into the street—and the fight was on!

Eddie watched the enraged figure coming at him, then, with athletic precision, made a flying leap at his legs and sent him sprawling to the pavement. The two grabbed each other and rolled over and over as Carson swung his arm violently, trying to land a blow with his pipe. Then for an instant Eddie pinned him arm, wrenched the weapon from his grasp, push-

ed himself away, and jumped to his feet. Furious, Carson leaped up and dove at Eddie. But with a quick move, Eddie stepped back and brought the pipe crashing down on his assailant's head. Carson sank to one knee, but rose again with hatred in his eyes. Suddenly frightened, Eddie slashed the pipe against his forehead. Carson staggered, his mouth went agape, his eyes bulged. Another moment, and he fell backwards into a contorted heap. Eddie gasped in disbelief; then his whole body went limp.

"Cops!" someone yelled.

"Cops!" the cry was repeated.

"Cops!"

"Cops!"

"Cops!"

The sudden news spread like a range fire through the battling mob. At once the clatter of footsteps began to echo down the street as the youths scattered in all directions. In a matter of seconds the street was deserted—deserted except for Eddie Morrissey, who stood dazedly over Sonny Carson's crumpled figure, holding the lead pipe loosely in his hand.

Soon a lone squad car turned into view, came on down the street, and slowed to a stop. Out of each side stepped an officer.

"Drop it, fella!" the driver ordered as he drew his gun.

Without emotion, without moving, Eddie released his grip on the pipe and it clattered to the pavement. The other policeman bent down over Carson. There was silence for a while, then he stood up again.

"Darn street brawls," he muttered. "You're in trouble, kid," he told Eddie. Then, turning to his associate, "Better call an ambulance," he sighed. "This guy ain't breathin.' I'm afraid he's dead!"



Did You Know

WILIAM J. ZIMMER and GEORGE R. KUHN

Ken is making the acquaintance of decimals and has been asked to divide 10 by 3. He proceeds:

"3 into 10, 3-decimal point - - -"

"Right. Go on."

"Carry 1 - - - 3 into 10, 3 - - - another 3, and another. Why, they are all 3's!"

"Yes, indeed."

"Well, how long do they go on?"

"As long as you like."

"What, for a million years?"

"Yes, if you like."

"No, not for a million years!"

"Why not?"

"Well, you see, by that time they will know much more about mathematics than we do and they'll soon put a stop to that."

What Ken is actually saying is that the methods of mathematics are continually changing, continually improving. But, contrary to many a layman's belief, this most fundamental science has many an intriguing aspect.

By means of mathematical symbols, intuitively false statements can be proved true. You want a proof of this you say? To begin with, a half full bottle is the same as a half empty bottle. Right? In mathematical symbolsism, ½F.B.=½E.B. Multiplying both sides by 2, the above equation reduces to F.B.=E.B., or, a full bottle is the same as an empty bottle. Try this the

next time you return your empty coke bottles.

Seriously though, mathematics covers, as it were, a multitude of sins. In mathematics, one can find something firm enough on which to build great empires. This something is the seemingly insignificant number, the basis for all physical constants. But don't jump to conclusions and think that numbers, which are extremely basic and constant, are prosaic. On the contrary, even from the common unit can be built figures so tremendous that even the wildest imagination could not grasp their magnitudes.

The accumulated amount of one cent at 6 percent interest, compounded annually for 1934 years, is equivalent to 64,129,500,000,000,000 spheres of gold the size of the earth, assuming the radius of the earth to be 8,000 miles, and the value of a gold brick, 8 by 2 inches, to be 40,000 dollars. All this from the simple unit.

Then, too, in mathematics, one can find variety, diversity. Though the value of numbers does not change, mathematical processes do. By means of even the simplest processes innumerable mathematical schemes can be devised.

One such scheme is the following triangle of natural numbers. The last number in each column is a square, and in any row or column the terms exhibit some interesting relationship.

Material used in this article was compiled by Phillip Gilbert and Joseph Peters.

```
65 83 103
                  50 66 84 104
               37 51 67 85 105
            26 38 52 68 86 106
         17 27 39 53 69 87 107
      10 18 28 40 54 70 88 108
    5 11 19 29 41 55 71 89 109
  2 6 12 20 30 42 56 72 90 110
1 3 7 13 21 31 43 57 73 91 111
  4 8 14 22 32 44 58 74 92 112
    9 15 23 33 45 59 75 93 113
      16 24 34 46 60 76 94 114
         25 35 47 61 77 95 115
            36 48 62 78 96 116
               49 63 79 97 117
                  64 80 98 118
                     81 99 119
                       100 120
                           121
```

101

82 102

Let us fix our attention on the row between the parallel lines. Starting with the number 3, we observe that every third number has 3 as a factor. Every seventh number after 7, for example 91, is divisible by 7; every thirteenth number after 13, for example, 273, is divisible by 13, and so forth. The product of any two consecutive terms of the row is also a term of the row.

The place in the row occupied by such a product is indicated by the number obtained when 1 is added to the square at the end of the column containing the smaller of the two terms. For example, to find the place occupied by $7\times13=91$, observe that the column containing 7 ends in 9. Since 9+1=10, the number 91 is the tenth in the row.

Similarly, we know that $13\times21=273$; it is the seventeenth term of the row because the column containing 13 ends in 16, and 16+1=17. Likewise notable is the fact that every number in the row is of the form n^2-n+1 .

Another fascinating mathematical procedure is that concerned with divisibility by 7. By means of simple but unique additions and subtractions, various numbers divisible by 7 can be found. Beginning with any two-digit number divisible by 7, another is also divisible by 7 when the digits of the first are reversed and the tens digit is added. For example, 14 is divisible by 7 and so is 41+1=42.

Any three-digit number abc divisible by 7 is also divisible when the difference c-a of the end digits is subtracted from it's reverse.

Thus, 126 is divisible by 7 and so is 621-(6-1)=621-5=616.

Repetition is often synonomous with boredom, but, on the other hand, repetition can be very amusing. The formation of identities by using the same digits on each side of the equation can prove to be a pleasant pastime.

$$1+2+3=1\times2\times3$$

 $35+9=53-9$
 $6(4+2)=42-6$
 $2(5+5)=25-5$
 $3+3+4\times4=34-3\times4$
 $2\times3+4=4\times3-2$
 $5(5+5)=55-5$
 $3\times3+4\times4=33-4-4$
 $6(6+6)=66+6$
 $1+1+2+4=1\times1\times2\times4$

Try to form some identities of this type by using the equation (m-1)m+(m+1)=(m+1)m-(m-1).

Along the same line of unique operations and repetitions, there exists a group of two digit numbers of such form that when two of them are multiplied together their product is equal to the product of two numbers that contain the same digits as the original numbers but in reverse order. These groups of numbers are:

 $12 \times 42 = 21 \times 24$ $14 \times 82 = 41 \times 28$ $26 \times 93 = 62 \times 39$ $12 \times 63 = 21 \times 36$ $23 \times 64 = 32 \times 46$ $39 \times 86 = 93 \times 68$

If the science of mathematics describes the order of present phenomena, can it also predict the order of things to come? It has been said that all things began in order and so shall they end according to the Ordainer of order and the mystical mathematics of the city of heaven. Has this science of mystical mathematics been found? From a Polish newspaper, the Mathematical Gazette quoted these facts:

	Kaiser Wilhelm	Masaryk	Benes	Hitler
Born	1859	1850	1884	1889
Beginning of reig	n 1888	1918	1935	1933
Term, years	30	17	3	12
Age at termination	n 59	85	54	56
Total	3836	3870	3876	3890
Divided by 2	1918	1935	1938	1945

Thus by means of certain numbers, dates of historical events should lend themselves to prediction. Let us apply this scheme to a person of somewhat questionable fame, Uncle Joe Stalin.

Born Beginning of reign Term, years to date Age to date	1879 1941 12 74
Total Divided by 2	3906 1953

This scheme seems to indicate that something will happen to Joe in 1953. What will it be? Death? Resignation? Victory?

From elementary mathematics everyone is taught the usefulness of the science of numbers. Monetary sums are obtainable; physical and chemical problems are solved. Mathematics is truly pragmatic; but it is much more than this. It is entertaining, adventurous. Mathematics, both theoretical and applied, is a gem of many facets, having consistency in the numbers, diversity in its processes, and variety in its applications. In the study of this discipline, everyone—physical scientist, socialist, or economist—can find tools which are serviceable as well as entertaining.

Norman Anning of the University of Michigan applies mathematical symbols to form an intriguing epistemological soliloquy:

What does Mr. Anning say? By clearing the parentheses and brackets, the statement becomes:

Now I know how I know that I know what I know.

Mathematics, as shown above, is undoubtedly the foundation on which great empires are built; an exemplification of progress and change. In view of this, the authors hope the following is true:

[Now you+(how+{T+W}hat)we] see in mathematics.

Music and the Beast

WILLIAM G. HOYNG

I was nine, and the sun shone bright above me as I trudged slowly down the street — to the end of the block, to the small white house on the corner, to the home of my violin instructor! Little did that jolly sun realize how ineffective were its gentle rays in soothing the pain which tore at my juvenile heart. Little did it realize that this was the one day of the week when all the balms of the Orient, all the powerful herbs of the African witch-doctor, all the then-known medicines of the world could not assuage my bitter grief.

It was time for my weekly encounter with the master, euphemistically called a lesson, in view of the shrieks and moans which soon would come forth from the unassuming instrument under my arm. What good is a dinky old violin, I asked myself. (Of course, that was in the days when I was still so uncouth as to use such a word as "dinky.") What good was it? Down the block the other kids were shouting and screaming and making all kinds of horrible noises. But they were playing! They were having fun! 1? I had to create all my sounds with that puny little squeak-box!

Still muttering under my breath, I turned into the yard which lay in front of the master's house. Then suddenly I stopped, startled from my thoughts by a low, rumbling growl. There, in front of me, stood a big black German police dog, eyeing me viciously. He growled again and started moving toward me. I was rigid with fear. I could never outrun the dog with that violin under my arm, and I knew what would happen if I abandoned it! (To those ignorant of events surrounding a beginner's course in music, let it be said that my ears

would suffer more by the loss of that detestable little box than they did when I had to make sounds with it.) I was desperate. A drowning man grasps a straw—and so did I!

"Music soothes the savage beast," I had been told. (My own sweet mother, in fact, unable to devise a better reason for my lessons, was wont to appeal to my youthful idealism with that somewhat doubtful adage.) Over and over I turned the axiom in my mind. Music soothes . . . Music . . . What? Any kind of music? Even-it was too fantastic to believe . . . Could even the shrieks of the violin in my hands soothe the savage beast? I retreated a step, opened the case, took out my working tools, and began to play my latest opus, "Three Blind Mice" (in the key of B Flat, of course). Note after-pardon me-sound after sound filled the wounded air. "Three blind mice ... three blind mice ... "I held my breath and continued. "See how they run . . . see how they run . . . " Then I glanced at the dog. He stood, rooted to the spot, a look of wild confusion and fear frozen in his eyes. Then, as suddenly released from steel bonds, he ran wildly up the street with his tail waving madly behind him, not unlike a peace-loving cow fending off the attacks. of a swarm of flies.

Now, after many years have passed, I look back on that eventful day with the cool, clear light of reason, and realize the importance to science of my experience. Nay, to the world and all its citizens! For, from such little things, the insignificants and the inconsequentials, great and worthy discoveries are made. Philanthropic-like, therefore, I leave to posterity my observa-

tions, confident that they will form a notinsignificant part in the march of the nations to create a better world.

First, although my music happily produced the desired effect in the aforementioned instance, I am not reluctant to admit that there is some basis for questioning the manner in which the effect was produced. Was it the beauty of my rendition? Hardly, judging from the expression on that unfortunate canine's face. Was it perhaps the underlying theme—the motif of my selection that caused the reaction? (Recall here those most important words, "see how they run"-repeated then-"see how they run.") This also I doubt, since few members of the canine species, however well educated, could remember the words of a simple popular song, much less the lyrics of the classical piece mentioned.

No, my dear associates, the cause of this reaction was something far greater—something almost too great for even my admittedly advanced acumen. This reaction was due to a strange, little-studied phenomenon, to which I have devoted years of research and careful accumulation of data. That poor, fun-loving youth who once I was, shackled by the thin, but strong, steel strings of a violin, portrayed—nay, made manifest— his emotions far more faithfully by the wailing, sobbing vibrations which resulted from his vain attempts at music than the accomplished maestro could ever

hope to do with all his practice and polish.

Applying this hypothesis to the case at hand, we can only deduce that, horrified by the terrible din (unequalled even by a midnight chorus of alley-cats) the subject (the dog) interpreted my selection as a plaintive plea for liberty, a plea too stirring to be left unheeded. And, not wishing to remain in the vicinity of such terrible shrieks anyway, the repressed animal compensated for his inadequacies by taking himself hastily to a more propitious environment, choosing to retreat rather than to face his problem.

In this introduction to a tremendous field of investigation, I might briefly mention another case which weakens the validity of the supra-stated adage. I speak of the effect of the hunter's bugle call on horse and dog alike, an effect which to my logical mind seems anything but soothing. Also, the snake-charmer's piping, which arouses the serpent from slumber and stimulates him to rise in his basket. Cases are innumerable and may all be found in the daily records of my laboratory experiments, records which shall become public property after my demise.

But no time for such thoughts! My violin calls to me with soft, intimate whispers, the whispers of a life-long friend. And far from being soothed, I am compelled to advance on the wings of ambition to the second chapter of Burbank's *Elementary Violin Course*.

The Bed

JEROME L. EILERMAN

The importance and betterment of a place to lay our heads has been undoubtedly of utmost interest to all people since those first two creatures of the human race were placed on earth. Ever since the first night that Adam spent in his new environment, man has been trying to improve his place of rest. Development was slow. Primitive man soon became dissatisfied with his long hours of darkness spent under the trees and (though Thoreau, several eons later, lauded this method of nocturnal refreshment as ideal) decided to get something between himself and the damp, dewy earth. He began to use rocks covered with skins of animals as a kind of platform for his head. This device removed the head at least from direct contact with the ground. Not long after this innovation received rather wide currency, some soft-headed prehistoric malcontent began to complain of neck pains and head bumps from the hardness of the pillow. He experimented for some days and made the discovery that bear skins folded into a pocket-like receptacle and filled with leaves were the answer to his problem and the end to his ills. Overjoyed with the success of his invention and pleased with the popularity it had gained for him among his fellow cavemen, he set himself to work to further improve the race's sleeping habits. He constructed a fourlegged scaffold on which the whole body, not merely the head, could recline. This was the first bed.

To this scaffold was soon added the first mattress, a quantity of straw spread evenly over the floor of the construction. And, not long after, this mattress took the form of a large pillow: the straw was sewed into bear-skin bags. Comfort seemed assured for all sleepers unto the end of time.

Yet, the artistic drives of man soon made themselves felt. Some aesthetic forerunner of the Chippendales began to carve images and runic inscriptions on the posts of the bed. Incipient Rembrandts mixed their colors and applied them to side pieces of the bed. Designs, pictures, carvings, and whirligigs of every description were noted on the beds of all the progressive members of the tribe. One wasn't in the social world unless one could, at primitive afternoon teas, point to some richly ornamented bed in the corner of the cave.

As science advanced, greater attention was displayed toward the quality of the pillows, mattress, and coverings. The minds of men converged on the problem of warmer, softer, and more comfortable appointments for the bed. It was in this golden age that some ancient Nobel Prize was awarded the genius who first stuffed the pillow with feathers, and made the prediction that the future would see even the mattress of straw discarded in favor of a feather bed. In this age, too, wide experimentation brought the discovery of wool and its replacing of animal skins for clothing and comforters. Modern man will perhaps never realize the progress in hygiene alone which was made possible by these changes. Sheets, pillow cases, spreads, and all the rest were just around the corner.

Should Adam return to earth in this twentieth century, he would wonder at the inner-spring contraption in the corner of our sleeping rooms. Foam rubber pillows and mattresses, electric blankets, wake-up-to-music alarm clocks, fluorescent bed

lamps; all these amazing luxuries would perhaps confuse the Father of All Living for a while. But after a while he might ask himself whether or not he slept just as soundly and peacefully under the trees of Paradise as his twentieth century children in their "homes of the future" and "beds of tomorrow."

Beds of tomorrow? Yes, perhaps the evolution of our furniture for sleep has not reached its climax yet. Through the years

man has constantly dreamed of beds as soft as clouds. "Like sleeping on a cloud" has become the standard expression for describing man's ideal in luxurious sleeping. Can we not, with some realism, envision a bed of electronic waves, and men lulled to sleep by gently pulsating alpha waves and supersonic vibrations? Science, they tell us, can do anything. Well, good night and sweet dreams, college men. It's "lights out" time again.

Once upon a time long ago there was a wise king whose country was infested with hot rods. One day the prime minister (who was all for bows and arrows) handed him a report from a young statistician which said that the pedestrian proletariat was perishing at the rate of 50.62 men a day. The wise king was stumped for the moment since he had recently bought a new car with twin carburetors and overdrive, but then he issued a proclamation:

"We have decided that each driver in our kingdom shall be allowed three pedestrians a year. Any driver exceeding this shall lose his head."

During the next six months the used car business and funeral directors made more money than they had for the last five years. Then suddenly their business slacked off to normal and the number of deaths due to automobiles dropped to an all time low. Political analysts and the polls came to the same conclusion: the pedestrian was keeping to the sidewalk.

Which goes to show that there really are two sides to every question.

-Boston College Stylus, January, 1953

Jeanie

EDMUND F. BYRNE

The glow of the moon cast a silvery sheen over Jim Manning's back yard. The late summer air was cool, and the sky was full of stars.

Jim and his friend Bill Maggio had gone apart from the rest of the gang and were sitting in the dark under a large elm tree. The others, about twenty boys and girls in their late teens, were scattered throughout the yard, but for the most part were standing around the grill roasting wieners—now laughing, now whispering, now standing in reflective silence.

"It's a great gang!" said Bill, with a nos-

talgic tear in his eye.

"Hard to believe that it's all over, isn't

it?" Jim added.

"It's not all over!" Bill snapped. Then, regaining his original calmness, he continued. "It'll never be the same again, but it's not all over."

They were quiet for a moment, then, "Just think," Jim continued, "tomorrow night by this time, we'll be scattered all over the country—you at Notre Dame, me at Illinois . . . Nancy at Clarke . . . Mike at Ambrose . . . Jeanie—"

"I wonder how Jeanie feels," Bill inter-

rupted.

"Gee, I don' know; it must be rough, movin' to another town after livin' here so many years—"

"An' making so many friends," Bill again cut in. "With us there's vacations . . . an'

summers. But Jeanie-"

Jim laughed. "What 're we moanin' about? She's the one who should feel bad—but look at her!"

Bill raised his head and glanced over at the fire. The gang had just broken into a roll of laughter—and there, in the center of the group, was Jeanie, rocking back and forth in convulsive merriment.

"How can she look so dignified one minute, an' be so natural and unaffected the next?" Jim asked, almost to himself.

"Jim, when it's dignified, she's informal, an' when it's informal she's dignified."

"That's good—"

"She is," Bill went on. "I mean, she's at home anywhere. She's tall, but she has poise—y' hardly notice how big she is,—"

"Yeh," Jim cut in, "especially at the hips!"
"Maybe," Bill laughed. "But she's not

plump.

"I know it," said Jim, feigning anger. Then he went on in a loftier mood. "But what's the difference what she looks like? It's her personality that gets me!"

"Boy, that's fr sure! I'll bet there wasn't a girl in school who was liked as well as

Jeanie."

"There's something fresh about her—like a morning glory sprinkled with dew . . ."

"Well! pipe the poet," Bill remarked.
"Don' get wise, boy! You know what I mean,—"

"Pu-leeze, darling!"

"Name one girl who would do as much for y' as Jeanie!"

"Pu-leeze, darling. This is our last night

together. We can be friends, no?"

"All right, cut the sarcasm," Jim laughed, playfully driving his fist into Bill's shoulder. Bill, of course, quickly returned the favor—then suddenly his expression became serious

"What time is it, Jim?" he asked.

"A-a-ah, it's just ten-thirty. We got hours!"

"Yes," Bill agreed, trying to force a smile.

"Y' think Joe'll miss her?" Jim asked.

"What? Oh, you mean Jeanie? What d' you think? I'll bet Joe's own mother doesn't understand him as well as she does."

"You could almost say that about any of us-"

"Yeh, isn't it funny? Y'know, ten kids could come up t' me an' say, 'Bill, you were a scream tonight.' An' just about the time I'd start believin' it, Jeanie 'ld walk up an' say, 'Bill, I hope you don't make such a fool out of yourself again.' An' right away I know she's right . . ."

"She ain't afraid to say what she thinks-"

"An' she's not being—well, malicious; it's just that she sees y' the way you really are, an' she wants y' t' see yourself that way, too!"

"Boy, talk about charity! Y' know, as good friends as we all are—I still hate to point a guy's faults out to him."

"Me too-"

"Bill, did you ever notice the way Jeanie laughs at her own mistakes?"

"Laughs at 'em?"

"Yeh. I mean, she never seems to take herself seriously."

"Oh, yeh. Like when I do something stupid, I usually blush my fool head off. But Jeanie—I don' know—I guess she ain't got any pride!"

"That's what I mean. She just leans back an' laughs at her own dumbness!"

"Remember that day we had her believin' that my baseball mitt was a welder's glove?"

Jim looked puzzled.

"Oh, that's right. You weren't there. Anyway, we had her convinced till Dad told her he never saw it used for anything but baseball."

Jim laughed. "That's Jeanie all right!"
"She just husted out laughin' an' gues

"She just busted out laughin' an' swore

revenge. But the fact that she was wrong didn't make a bit of difference . . ."

"What d' y' think of her new haircut?" Jim asked.

"Ain't that a corker? I'll bet the gal that did it was ashamed t' let her go out in public!"

"Oh, I like it!" Jim protested. "Specially the way the tips of her ears just barely show underneath..."

"Did'ja notice that wave she's got-all across the front?"

The gang was now sitting in a circle around the fire. And, with Jeanie's clear voice rising above the others, they began to sing.

"C'mon, Bill," Jim exhorted. "Let's put the golden throats to work."

The two boys hopped to their feet and, with their arms around each other's shoulders, they walked up to the fire, bowed to the cheering throng, then uncoupled and sat down beside the two girls whom they had deserted.

Twenty voices rang through the night, filling the air with the songs which they had sung so often before. The talent was varied, of course, but volume was plentiful. Finest of all were Jeanie's crystal notes . . .

As she sat there next to Joe, the wavering firelight changed her auburn hair from darkest brown to brightest gold. Her round face was bathed in a pleasant smile. Her cheeks were bulging like those of a little chipmunk. Her soft, searching brown eyes were set off by heavy brows and a fine Roman nose-perhaps too large for perfection, but hardly noticeable above her full, rich lips. Her gentle smile revealed a lovely set of teeth, and formed a cavernous dimple on one side of her mouth. She was casually dressed: a sweater-grey wool, buttoned down the front; a skirt-navy blue; and a blouse-one of those lacy, frilly things of which she was so fond . . .

The Whiffenpoof Song ended abruptly when everyone forgot the next words; then Jim spoke up.

"A toast to Jeanie, gang!" And he broke into song: "I dream of Jeanie with the light

brah-oon hair . . ."

More voices joined the song at each note until soon all were again in action. And on and on they sang. A tear came to Jeanie's eye, and in a minute she had pulled a hand-kerchief from her little purse. But it didn't help. The tears kept coming. She jumped to her feet, turned, and fled to another part of the yard. The singing stopped.

Only now did everyone fully realize that

it was the last night together. They were really leaving in the morning—Jeanie was leaving for good! The happy days of high school were breathing their last. The beautiful dream was over.

Joe rushed back to speak to Jeanie.

"C'mon, it's early yet!" Jim spoke up. "Let's kill a few more." And again he was off in song. "Five foot two, eyes of blue..."

The gang joined in, and on into the night their voices rang. The stars twinkled brightly overhead. The fire in the grill had reduced itself to glowing embers. But the moon still covered the group with its silvery sheen.

Here is an almost infallible rule: Seek out in a writer, whether he be good or bad, the most-used word, the favorite word, the word that recurs most often, and when you have found it you will probably plumb the depths of the author's soul. One day I did this to M. de Goncourt, one of the most vaunted writers of the end of this century, and do you know what I found? I found the word "Nothing." I published this discovery and it seems that I have thrust home because this man has had the greatest dread of me ever since.

-Leon Bloy, LETTERS TO HIS FIANCEE